AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (Currently Amended) An electrostatic charge remover using soft X-rays, said remover comprising:

a head part neutralizing and weakening electrostatic charges of bodies, ~~that are objects of~~for removal of the electrostatic charges from the bodies, by generating soft X-rays having wavelengths in the range of 1.2 Å ~1.5 Å with high energy from a soft X-ray tube that is an ion generating tube using thin film of Be evaporated with W as window material, and ionizing gas molecules directly and also removing electrostatic charges in atmosphere of inert gases (N_2, Ar);

a soft X-ray protecting part wrapping said head part and preventing that soft X-ray is leaked from said head part in order that ~~worker may not be bombed by~~a user of the electrostatic charge remover is not directly exposed to radiation;

a power controlling part being connected to said head part and said soft X-ray protecting part electrically and providing target voltage to control [[the]]ion generation of a soft X-ray tube and a filament voltage of [[a]]the soft X-ray tube, ~~and soft X-ray tube with soft X-ray tube~~ in order to control the ion generation so that said head part may generate soft X-rays appropriately, and

wherein ~~it is characterized in that~~ said remover removes the electrostatic charges [[an]]on the surface of charged bodies by generating ions or electrons by ionizing gases surrounding charged bodies.

2. (Currently Amended) [[An]]The electrostatic charge remover using soft X-rays as set forth in claim 1, wherein ~~it is characterized in that~~ said soft X-ray protecting part is made of iron plates with thickness of 1 mm and an interlock switch controlling whether said power controlling part operates or not and a door putting odoff said interlock switch

are installed in said soft X-ray protecting part for safety and in a state said door is opened, said head part does not generate soft X-ray.

3. (Currently Amended) [[An]]The electrostatic charge remover using soft X-rays as set forth in claim 2, wherein ~~it is characterized in that~~ said power controlling part controls anode voltage (target voltage) and filament current by using PWM modulator and pulse width controlling method and switches to a frequency of 30 KHz by constructing a half bridge circuit with FETs and the PWM modulator and the half bridge circuit are mounted for filament power and anode voltage generation respectively.

4. (Currently Amended) [[A]]The electrostatic charge remover using soft X-rays as set forth in claim 3, wherein ~~it is characterized in that~~a voltage from an anode voltage generating part of said power controlling part is fed-back through tube voltage sensor and makes a target operate at a constant voltage of 9.5 KV, [[and]]

wherein a separated transformer, ~~being~~which is a constant voltage source device to a filament current, is fed-back through a filament current sensor and a tube current sensor and makes a filament operate at constant current of 150 μA, and current is fed-back through a tube current sensor, and

wherein the generated quantity of the soft X-ray does not change according to a time of use~~although it is used for a long time~~.

5. (Currently Amended) [[An]]The electrostatic charge remover using soft X-rays as set forth in claim 4, wherein ~~it is characterized in that~~ said anode voltage generating part of said power controlling part comprises:

a high transformer generating high voltage;

a tube voltage sensor detecting high voltage generated by said high transformer;

a high voltage doubling rectifier, wherein voltage is fed-back to said rectifier through said tube voltage sensor and said rectifier operates at a constant voltage;

a transformer generating filament current;

a filament current sensor detecting filament current generated by said transformer; and

a part inletting electric wires by insulating the electric wires from high voltage, and fixing a ceramic soft X-ray tube.

6. (Currently Amended) [[An]]The electrostatic charge remover using soft X-rays as set forth in claim 1, wherein ~~it is characterized in that~~ said soft X-ray tube consists of vacuum tubes for generating soft X-ray by generating ions and a ceramic tube is used for controlling heat generation of said soft X-ray tube.

7. (Currently Amended) [[An]]The electrostatic charge remover using soft X-rays as set forth in claim 1, wherein ~~it is characterized in that~~ the effective maximum installation distance of said electrostatic remover is 2000 mm.

8. (Cancelled)

9. (Currently Amended) A soft X-ray tube manufacturing method used in an electrostatic charge remover using soft X-rays removing electrostatic charges on the surface of a charged body by generating ions or electrons after irradiating lights with high energy (wavelength in the range of 1.2 Å ~1.5 Å) and ionizing gaseous molecules directly to remove electrostatic charges in inert gases too and ionizing the surrounding gases near the charged body, said method comprising the steps [[for]]of:

painting Mo-Mn paste with silk screen on ceramics to get metallizing coat of a ceramic tube and then heating Mo-Mn paste under hydrogenous circumstances at 1,350° C. for two hours and cooling said heated Mo-Mn paste;

plating non-electrolytic nickel on said metallized surface after said cooling;

deciding a filament's diameter according to the quantity of electrons to be

generated after said nickel plating and turning the filament around a round steel bar predetermined times and pulling the bar out of the filament and coating the filament with LabaO;

coating anode material on a Be window plate after said LaBaO coating, wherein the edge to be brazed is left not to be coated and accordingly filler metal consisting of Ag of 73% and Cu of 27% flows over said coated anode surface and prevents [[the]]an efficiency of soft X-ray generation from dropping;

coating W over the Be window plate by using a [[f]]Filtered [[v]]Vacuum [[a]]Arc [[s]]Source (FVAS) coating device after said anode material coating;

performing high vacuum brazing by using an exclusive vacuum furnace and heating up temperature up to 900° C. by using a Mo heater and increasing degree of vacuum up to $4x10^{-7}$ Torr by using a turbo molecular pump and a rotary pump;

making vacuum exhaustion of a tube up to a predetermined degree smoothly in case of brazing junction and making every material melt and form a body if temperature is over a melting point and embossing filler metal and brazing said embossed filler metal in order to keep the degree of vacuum as high as possible; and

inserting a getter that is degassed at 450° C. as a non evaporable getter consisting of Zr-Ni-V-Fe material positioning near an inner cathode and activated in order to increase the life of tube.

10. (Currently Amended) [[A]]The soft X-ray tube manufacturing method as set forth in claim 9, wherein ~~it is characterized in that~~ said getter is fixed on the outer surface of a Ti cylinder of a cathode by welding ~~in case of~~when attaching a filament and said activated getter absorbs gases generated at the inner space of a closed tube and accordingly the degree of vacuum is kept for a long time and the life of said tube is prolonged.

11. (Currently Amended) [[A]]The soft X-ray tube manufacturing method as set

forth in claim 9, wherein ~~it is characterized in that~~the X-ray tube is manufactured such that a target voltage is 9.5 KV and a filament current [[is]]of 150 μA are used by the X-ray tube in order to generate soft X-rays.